

CLAIMS

What is claimed is:

1               1. A Web-based invoice viewing system for  
2               enabling a customer to retrieve an invoice, over the  
3               Internet, which relates to an application service  
4               provided by an enterprise to the customer, the system  
5               comprising:

6               a client browser application located at a  
7               customer workstation for enabling interactive Web-based  
8               communications with the invoice viewing system and  
9               providing an integrated interface;

10              at least one secure server for managing  
11              customer sessions over the Internet, the secure server  
12              supporting a secure socket connection enabling encrypted  
13              communications between the client browser application and  
14              the secure server;

15              an invoice presentation device for enabling  
16              selection and presentation of invoice documents in  
17              accordance with customer entitlements, the invoice  
18              presentation device further generating an invoice request  
19              message in response to customer selection of a specific  
20              invoice option and forwarding the invoice request message  
21              via the secure server; and

22              an invoice server device for maintaining a  
23              database of image files associated with documents from  
24              the application service and receiving the invoice request  
25              message, the invoice server device accessing the database  
26              in response to a request message and generating a  
27              response message for forwarding back to the invoice  
28              presentation device via the secure server,

29                   wherein the response message is assembled in a  
30                   form suitable for display and the invoice presentation  
31                   device presents a customer selected invoice document at  
32                   the client workstation.

1                   2. The Web-based invoice viewing system as  
2                   claimed in claim 1, wherein the database of image files  
3                   further includes an object database, and the invoice  
4                   server device further includes:

5                   conversion process for imaging documents by  
6                   defining key information necessary to retrieve documents  
7                   from the application service and compress the documents  
8                   for storing; and

9                   store process for loading the compressed  
10                  documents into the object database.

1                   3. The Web-based invoice viewing system as  
2                   claimed in claim 2, wherein the database of image files  
3                   further includes an index database, and the invoice  
4                   server device further includes index load process for  
5                   storing index pointers pointing to the compressed  
6                   documents into the index database.

1                   4. The Web-based invoice viewing system as  
2                   claimed in claim 1, wherein the invoice presentation  
3                   device includes a presentation applet downloaded from the  
4                   secure server, the presentation applet launched within a  
5                   Web browser window.

1                   5. The Web-based invoice viewing system as  
2                   claimed in claim 1, wherein the invoice presentation  
3                   device includes invoicing classes downloaded from the

4           secure server, the invoice presentation device launched  
5        by the client browser application and running in a frame  
6        distinct from a browser window.

1           6. The Web-based invoice viewing system as  
2        claimed in claim 1, wherein the invoice presentation  
3        device further includes one or more dynamic  
4        accumulator(s) for enabling the customer to add numerical  
5        figures presented in the invoice document by highlighting  
6        the figures directly on the invoice document at the  
7        client workstation.

1           7. The Web-based invoice viewing system as  
2        claimed in claim 1, wherein the invoice presentation  
3        device further automatically populates products and date  
4        range fields associated with a customer identifier, the  
5        products and date range fields listing specific  
6        application services and time periods for which invoice  
7        documents are available for presentation.

1           8. The Web-based invoice viewing system as  
2        claimed in claim 1, wherein the invoice presentation  
3        device further enables the customer to send a batch  
4        printing request for a specific invoice document, wherein  
5        the invoice server device queues a batch printing job in  
6        response to the batch printing request for printing at  
7        the enterprise and delivery to the customer.

1           9. The Web-based invoice viewing system as  
2        claimed in claim 8, wherein the invoice presentation  
3        device further generates a tracking number associated  
4        with the batch printing request and enables the customer

5 to confirm and track the current status of the batch  
6 printing job.

1                 10. The Web-based invoice viewing system as  
2 claimed in claim 1, wherein the invoice presentation  
3 device further enables the customer to fax a specific  
4 invoice document which is presented at the client  
5 workstation to a customer specified location.

1                 11. The Web-based invoice viewing system as  
2 claimed in claim 1, wherein the invoice presentation  
3 device further enables the customer to retrieve via the  
4 integrated interface, information including product  
5 availability, scheduled systems availability, and status  
6 information.

1                 12. A method of remotely retrieving invoice  
2 reports at a customer workstation having a client browser  
3 application for enabling interactive Web-based  
4 communications over an Internet between a customer and  
5 enterprise applications, the invoice reports relating to  
6 network services provided to the customer, the method  
7 comprising:

8                 managing a client session over the Internet by  
9 providing a secure server which supports a secure socket  
10 connection enabling encrypted communications between the  
11 client browser application and the secure server;

12                 presenting at the customer workstation invoice  
13 report selection options representing available invoice  
14 documents associated with the network services;

15                 generating an invoice request message having a  
16 customer selected option;

17                   generating an invoice response message having  
18                   an invoice document data associated with the selected  
19                   option in response to the invoice request message;  
20                   communicating the invoice response message to  
21                   the client browser application via the secure server; and  
22                   presenting the invoice document data at the  
23                   customer workstation.

1                   13. The method according to claim 12, further  
2                   comprising:

3                   maintaining a database of image files  
4                   associated with documents from the enterprise  
5                   applications.

1                   14. The method according to claim 13, wherein  
2                   the step of maintaining further includes:

3                   defining key information necessary to retrieve  
4                   documents from the enterprise applications associated  
5                   with the network services;

6                   compressing the documents for storing; and  
7                   loading the compressed documents into an object  
8                   database within the database of image files.

1                   15. The method according to claim 14, wherein  
2                   the step of maintaining further includes:

3                   storing index pointers pointing to the  
4                   compressed documents in an index database within the  
5                   database of image files.

1                   16. The method according to claim 12, wherein  
2                   the method further comprises:

3                   enabling accumulation of numerical figures

4 presented in the invoice document data by allowing the  
5 customer to highlight the numerical figures directly on  
6 the invoice document data; and

7 presenting dynamically the accumulated  
8 numerical figure at the client workstation as the  
9 customer highlights the numerical figures.

1           17. The method according to claim 12, wherein  
2 the method further comprises:

3           enabling the customer to send a batch print  
4 request at the client workstation;

5           associating a document with the batch print  
6 request;

7           queuing a batch print job for the document at  
8 an enterprise; and

9           delivering printed document to the customer.

1           18. The method according to claim 17, wherein  
2 the method further comprises:

3           generating a confirmation number associated  
4 with the batch print request,

5           wherein the customer at the customer  
6 workstation is enabled to track the current status of the  
7 batch print job.

1           19. The method according to claim 12, wherein  
2 the method further comprises:

3           enabling the customer at the customer  
4 workstation to fax an invoice document presented at the  
5 customer workstation to a location specified by the  
6 customer.

1           20. The method according to claim 12, wherein  
2 the method further comprises:

3           presenting information including product  
4 availability, scheduled systems availability, and status  
5 information to the customer at the customer workstation.